Relax Data Science Challenge

Based on the analysis of the data, the most important factor in keeping customers is frequency of use early on. Customers that logged in multiple times after creating the log in remained customers, those that used it sparingly did not.

An adopted user is a user that logs in more than 3 times within 7 days. Based on this criteria, 18.7% of users become adopted users.

With logistic regression modeling, a model with 92% accuracy determined which users would become adopted users.

Model accuracy score: 0.9609065155807366

Confusion Matrix results are:

[[1412 22]

[ 47 284]]

Confusion matrix shows 1412 True positives and 284 True negatives for a total of 1696 correct predictions.

Confusion matrix shows 22 False postives and 47 False negatives for a total of 69 incorrect predictions.

precision recall f1-score support

0 0.97 0.98 0.98 1434

1 0.93 0.86 0.89 331

accuracy 0.96 1765

macro avg 0.95 0.92 0.93 1765

weighted avg 0.96 0.96 0.96 1765

ROC\_AUC score is:

92%

The most important feature to the model when the user id was created and the last log in.A graph with blue and white stripes

Description automatically generated